

Appl. No. 10/694,641
Amdt. dated June 14, 2005
Preliminary Amendment

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

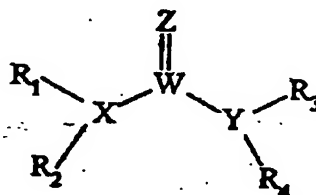
Listing of Claims:

Please cancel claims 1-13.

Please enter the following new claims.

14. (New) A method of reducing blood pressure in a patient, the method comprising administering to the patient a therapeutically effective amount of an inhibitor of soluble epoxide hydrolase.

15. (New) A method of claim 14, wherein the inhibitor is a compound having a structure of:



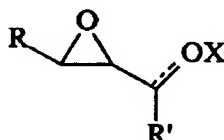
wherein Z is oxygen or sulfur, W is carbon phosphorous or sulfur, X and Y is each independently nitrogen, oxygen, or sulfur, and X can further be carbon, at least one of R₁ - R₄ is hydrogen, R₂ is hydrogen when X is nitrogen but is not present when X is sulfur or oxygen, R₄ is hydrogen when Y is nitrogen but is not present when Y is sulfur or oxygen, R₁ and R₃ is each independently C₁ -C₂₀ substituted or unsubstituted alkyl, cycloalkyl, aryl, acyl, or

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heterocyclic.

16. (New) A method of claim 15, wherein W is carbon and Z is oxygen.
17. (New) A method of claim 15, wherein X is nitrogen.
18. (New) A method of claim 15, wherein Y is nitrogen.
19. (New) A method of claim 14, wherein the inhibitor is a compound having a structure of:



wherein R is alkyl or aryl, the compound is *trans*-across the epoxide ring, OX is a carbonyl (—O) or hydroxy group (OH), and R' is a H, alkyl or aryl group.

20. (New) A method of claim 19, wherein said inhibitor has a structure wherein R, R', and X—Y are as follows:
 - (a) when R is C₆H₅, R' is C₆H₅, and X—Y is selected from the group consisting of: C—O, CH—OH, C—NOH, S—O, and CH—OCH₃,
 - (b) when R is 4-F—C₆H₄, R' is C₆H₅, and X—Y is selected from the group consisting of C—O and CH—OH;
 - (c) when R is 4-C₆H₅—C₆H₄, and R' is C₆H₅, X—y is selected from the group consisting of C—O, CH—OH, C—NOH, S—O and CH—OCH₃;
 - (d) when R is 4-C₆H₅—C₆H₄, and R' is 4-CH₃—C₆H₄, X—Y is selected from the group consisting of C—O and CH—OH;
 - (e) when R is C₁₀H₇, R' is C₆H₅ and X—Y is C—O;

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(f) when R is 4-NO₂-C₆H₄, and R' is CH₃, X-Y is selected from the group consisting of C-O and CH-OH; or

(g) when R is 4-NO₂-C₆H₄, and R' is H, X-Y is CH-OH.

21. (New) A method of claim 14, wherein the inhibitor is a pharmaceutically acceptable salt.

22. (New) A method of claim 14, wherein the inhibitor is administered orally.

23. (New) A method of claim 14, wherein the inhibitor is administered in a total daily dose from about 0.001 μM/kg to about 100 mg/kg body weight of the patient.

24. (New) A method of claim 14, wherein the patient has hypertension.

25. (New) A method of claim 24, wherein the hypertension is essential hypertension.

26. (New) A method of claim 14, wherein said blood pressure reduction comprises a reduction in systolic blood pressure.

27. (New) A method of claim 14, wherein said patient has high normal blood pressure.

28. (New) A method of claim 14, wherein the patient is at risk for cardiovascular disease, renal disease, or stroke.

29. (New) A method of claim 14, wherein the patient has cardiovascular disease or renal disease.